

# STATEMENT OF BASIS

**Burnside Plant**  
**E.I. du Pont de Nemours & Co., Inc.**  
**Darrow, Ascension Parish, Louisiana**  
**Agency Interest Number: 67572**  
**Activity Numbers: 20060002 & 20060003**  
**Proposed Permits 0180-00007-V4 & PSD-LA-722**

## I. APPLICANT:

### **Company:**

E.I. du Pont Nemours & Co., Inc.  
3460 Highway 44  
Darrow, LA 70725

### **Facility:**

Burnside Plant  
3460 Highway 44  
Darrow, Ascension Parish, Louisiana  
Approximate UTM coordinates are 701.2 kilometers East and 3334.3 kilometers North, Zone 15

## II. FACILITY AND CURRENT PERMIT STATUS:

E.I. du Pont de Nemours & Co., Inc. (DuPont) operates the Burnside sulfuric acid plant under Permit No. 0180-00007-V3 issued September 4, 2003.

## III. PROPOSED PERMIT / PROJECT INFORMATION:

### **Proposed Permit**

A permit application and Emission Inventory Questionnaire was submitted by DuPont on December 14, 2006, requesting a major modification of the Part 70 operating permit and PSD permit.

A notice requesting public comment on the proposed permits was published in The Advocate, Baton Rouge, Louisiana, on *[Insert Date]*. The proposed permits were also sent to US EPA Region VI.

### **Project Description**

DuPont will install dual absorption technology at the existing sulfuric acid plant to reduce sulfur dioxide emissions. Conversion efficiency of 99.8% will be achieved and sulfur dioxide emissions will be reduced to <3.0 lbs per tons of sulfuric acid produced. As part of the project, DuPont will increase the capacity of the sulfur burning contact side by re-rating existing process equipment and sizing new and replaced equipment for

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dual absorption to the re-rated capacity. The design sulfuric acid capacity will increase from 1800 tons acid/day to 2300 tons acid/day. Permitted emission of SO<sub>2</sub> is decreased by 90% even with the capacity increase.

**Permitted Air Emissions**

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Permitted</u>	<u>Proposed</u>	<u>Change</u>
PM <sub>10</sub>	0.25	0.38	+ 0.13
SO <sub>2</sub>	10,402.09	1,007.51	-9394.58
NO <sub>x</sub>	66.53	77.19	+ 10.66
CO	80.62	144.59	+ 63.97
VOC	3.47	3.56	+ 0.09
H <sub>2</sub> SO <sub>4</sub> Mist	47.38	63.96	+16.58

**Type of Review**

This application was reviewed for compliance with the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS) and Prevention of Significant Deterioration (PSD). NESHAP does not apply.

**MACT requirements**

This facility is a major source of toxic air pollutants (TAP). Sulfuric acid emissions from the plant are above the minimum emission rate (MER). Maximum achievable control technology (MACT) is not required for this Class III TAP and the Ambient Air Standard is being met.

**Air Quality Analysis**

Air quality analysis is not conducted.

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities refer to Section VIII of the draft Part 70 permit.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities refer to Section IX of the draft Part 70 permit.

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**Regulatory Analysis**

The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit, or where provided, Table X and XI of the draft permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the draft permit, or where provided, Table X and XI of the draft permit

**IV. PERMIT SHIELDS**

No permit shield will be granted with the proposed permits.

**V. PERIODIC MONITORING**

No periodic monitoring is required.

**VI. Glossary**

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

National Emission Standards for Hazardous Air Pollutants (NESHAPs) - The NESHAPs were originally required by the 1970 Clean Air Act (CAA). These standards were developed for sources and source categories that were determined to pose adverse risk to human health by the emission of hazardous air pollutants (HAPs). The standards are set "at the level which ... provides an ample margin of safety to protect the public health from such hazardous air pollutant." These risk-based NESHAPs are located in 40 CFR 61. The NESHAPs program applies to all existing and new/modified sources. Congress directed EPA to develop a program to develop further the regulation of HAPs in Section 112 of the 1990 Clean Air Act Amendments (CAAA). While the standards for major sources of HAPs developed per this section are also designated as NESHAPs, they are established according to Maximum Achievable Control Technology (MACT). These technology-based NESHAPs are located at 40 CFR 63.

Nitrogen Oxides (NO<sub>x</sub>) - Compounds whose molecules consist of nitrogen and oxygen.

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Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that *emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.*

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub>- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulphur.

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.